AUSTRALIAN SOCIETY FOR LIMNOLOGY INC

Australian Society for Limnology Inc.

NEWSLETTER

THE CONFERENCE EDITION

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ASL Australian Society for Limnology

AUSTRALIAN SOCIETY FOR LIMNOLOGY INC.

The Australian Society for Limnology Inc. (ASL) is an Australian based scientific society whose focus is the study and management of inland waters. The ASL was established in 1961, and has a current membership of over 650 researchers, managers, engineers, teachers and tertiary level students from all states and territories. Members have a strong professional interest in inland aquatic issues, including the maintenance of biodiversity, the maintenance and/or restoration of water quality, and the wise use of aquatic resources. The Society also has a strong interest in fostering the scientific and intellectual development of tertiary students.

The Society includes members working in government agencies, tertiary institutions and many industries related to aquatic resources. Through their daily activities, members have contact with local communities and are in a sound position to interpret and advise on inland water issues. The Society has a substantial knowledge base, and has assumed a responsibility to ensure that this is available to those who manage inland waters.

Accordingly, the charter of the ASL is to further our understanding of Australia's inland waters and to promote their wise use and sustainable management. In this manner we will contribute to the continued existence of this valued resource and the maintenance and enhancement of the quality of life for all Australians. The ASL regularly produces a newsletter with notes on limnological activities, articles of interest, book reviews and announcements of upcoming events likely to be of interest to Members.

ASL Home Page
www.asl.org.au

Or on Facebook
http://www.facebook.com/groups/australiansocietyforlimnology

AUSTRALIAN SOCIETY FOR LIMNOLOGY INC
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AUSTRALIAN SOCIETY FOR LIMNOLOGY INC

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PRESIDENT'S REPORT

NEW PRESIDENT'S REPORT

Well, as the dust settles after the conference in Armidale I find myself President of ASL! I would like to thank Darren Ryder and Darren Baldwin for their help and support as well as for doing a great job as President and immediate-past President while I was Vice President. I would also like to welcome Fran Sheldon as the new Vice President and thank the rest of the Executive for their support and efforts throughout the year.

The conference was once again a great success, with almost a third of those attending being students. The AGM held during the congress passed a historic set of changes to the ASL constitution. Our constitution had not been revised since the establishment of the Society 50 years ago and badly needed updating to reflect our present size, operations and the requirements of the law. Those who attended the AGM probably found voting for each clause separately rather tedious, however we have now made these important changes and can move forward with a more relevant constitution to guide our activities. So, thank you to all the members who attended the AGM and voted to approve the changes.

The membership report given at the AGM shows a strong increase in membership over the past two years. Over the next two years, the Executive will be considering ways to continue to grow the Society and increase the involvement of student members. One great outcome of the AGM was the appointment of 5 student representatives on the ASL Executive and I encourage student members to raise ideas and issues with these reps so that they can bring them to the Executive. This year's student workshops held prior to the congress were very successful and we would like to hear from students ideas of what they would like from the workshops at next year's conference in Canberra.

One trend during the past year has been an increase in State-based activities by the membership. ASL has been providing small amounts of funding for these activities and they are a great way for members to get together between congresses. I'd like to encourage all the States to continue to send suggestions for new activities to the Executive for funding, especially those states who have not yet taken advantage of the funds to hold an event for local members. The Executive is also developing guidelines for funding other activities that meet the Society's objectives and these will be made available on the website next year.

Wishing you all a Merry Christmas and a safe and happy New Year.

Belinda Robson

EDITOR'S REPORT

OUTGOING EDITOR'S REPORT

This is my last newsletter before I pass over to Sam Capon who, with the deputy editors, will no doubt take the newsletter to ever greater heights. I have done this job for 7 years (since I first arrived in Australia) and it has been a great way to meet the limno community. Thanks to all who have provided input and help, and I wish Sam all the very best.

Ross Thompson

NEW NEWSLETTER EDITOR:

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Griffith University

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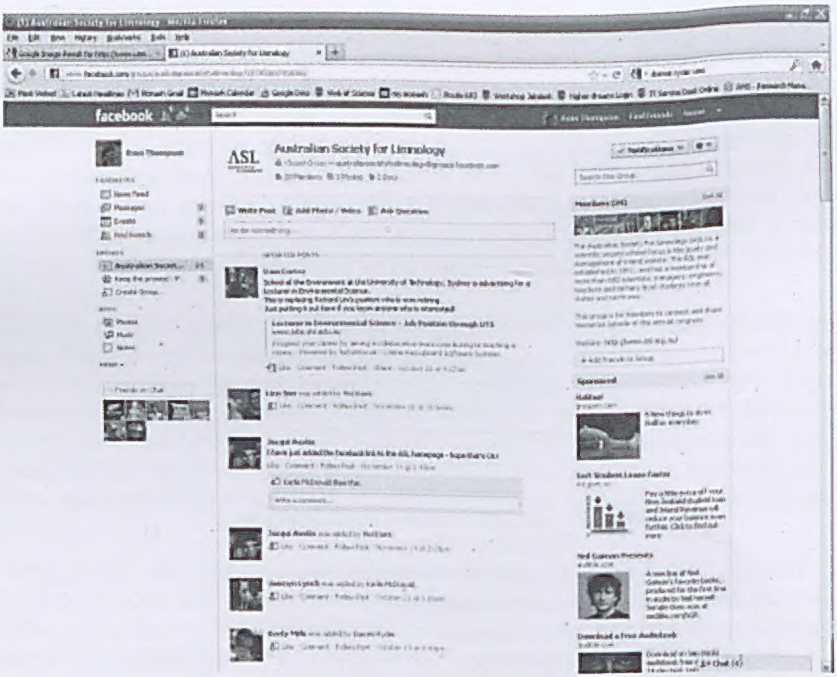
University of New England
Armidale, Australia

Keely Mills
Centre for Environmental Management
School of Science, Information Technology & Engineering (SITE)
University of Ballarat (Mt Helen)

The Australian Society of Limnology has a Facebook page!!

If you are on Facebook, then 'friend' us. If you aren't on Facebook, here is the incentive you have always needed to join.

Click here to go to Facebook now.



GENERAL ANNOUNCEMENTS

2013 Taxonomic Workshop

Aquatic Macroinvertebrates
La Trobe University, Albury-Wodonga Campus
Tuesday 5th and Wednesday 6th February 2013

Presented by the School of Life Sciences, Department of Environmental Management & Ecology

Program will include Crustaceans, Molluscs, Temnocephalans and Aquatic Dipterans.

Guest Speakers:

Mr John Dean
Dr Winston Ponder
Dr Kim Sewell
Dr Ros St Clair
Mr David Cartwright
Mr Chris Madden
Mr Michael Shackleton

Venue

The workshop will be held in room 6101, Main Lecture Theatre, La Trobe University, Albury-Wodonga Campus, University Drive, Wodonga VIC Australia 3690.

http://www.latrobe.edu.au/io/documents/maps/aw/aw-site.pdf

Details can be found at
http://www.latrobe.edu.au/environmental-management-and-ecology

Workshop costs

Course fee: $300 ($100 for full-time students) includes workshop, lunches, morning tea and afternoon tea.

Workshop dinner: Tuesday 5th February 2013 - $65

Contact and registration

1. For online registration please click here (http://webpay.latrobe.edu.au/onestop/tranform.cgi?TRAN-NO=829)

If you are unable to utilise a credit card to book your registration please contact Rachel Gorman.

Further information

For any further information please contact:

Ms Rachel Gorman
Phone (02) 60249885
E-mail: r.gorman@latrobe.edu.au

INTRODUCING *DUMA FLORULENTA*....

One of the most familiar plants in inland Australia, Lignum, has been re-named: what was *Muehlenbeckia florulenta* is now *Duma florulenta* (if you work off Field Guides like Plants of Western New South Wales, then you may still be referring to its even older name: *M. cunninghamii*). Classification techniques of genomic DNA of 87 species including 22 of the 30 recognised species of *Muehlenbeckia* found that three *Muehlenbeckia* (*M. horrida, M. coccoloboides and M. florulenta*) classified completely differently from all other *Muehlenbeckia*; and these are now all placed in a new genus "Duma".

So, if you see '*Duma florulenta*' referred to for floodplains across Australia, its really your old friend Lignum or Tangled Lignum, with a new name.

For those who want to follow this up further:

Schuster et al (2011) *Int. J. Plant Sci* 172(8): 1053-1066.

Dr Jane Roberts

OLDIES BUT GOODIES: CLASS SETS AVAILABLE

Two guides for catchment managers are available from the eWater CRC archives.

Conserving Natural Rivers by Peter Cullen, and *Assessing River Condition Using Existing Data* by John Whittington, are the two parts of the 'River Management Series' published in 2002 by the CRC for Freshwater Ecology.

Conserving Natural Rivers discusses (obviously) the protection of natural rivers, including: why do it; threats and how to reduce them; decisions needed by catchment authorities; and how to tell if *your* local river is of regional or national value.

Assessing River Condition covers: why and how to assess river condition; considerations in compiling relevant data and in doing the assessment; and communication tips. As it points out:

> *A well communicated assessment of river condition provides the foundation for effective regional planning and management of rivers.*

These should be useful for teaching undergraduates, for example, quite apart from the value of having a copy or three on your shelf as a memento of those CRCFE days. Relatively large numbers of them are available, and it'll be 'first-in first-served'.

Please email contact@ewater.com.au, saying how many copies of each you want, and where to send them.

Keep up to date on environmental water news

Water for the Environment News is available twice yearly from the Office of Environment and Heritage, NSW's environmental water manager. Each edition features stories on environmental water events and actions across New South Wales.

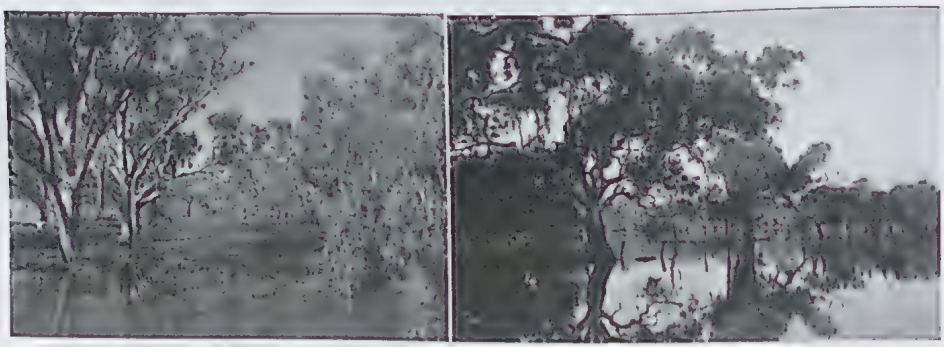
Read about:

- How wetlands and rivers are benefiting from environmental water
- Scientific studies and modelling on environmental water
- Partnerships between government, the community and other agencies
- Flora and fauna responses to flooding events
- Planned watering events
- Water policy
- Water purchased and recovered through NSW programs

The latest edition of the news is available online at:

www.environment.nsw.gov.au/environmentalwater/newsletters.htm

To subscribe to the newsletter, send 'Subscribe' to water.news@environment.nsw.gov.au



LEFT: Cochran Creek in May 2011 during a trial watering event. Photo: Emma Wilson/OEH

RIGHT: Dry Lake in June 2011 after 150GL of environmental water was released into the Murrumbidgee and Murray River systems. Photo: James Maguire/OEH

The 8th Waterbug Workshop

Wed 3rd - Fri 5th April 2013
Monash University, Melbourne

The eighth Waterbug Workshop is intended for anyone with an interest in the taxonomy and ecology of freshwater invertebrates. We focus on the skills required to use taxonomic keys and laboratory equipment to enable participants to identify a wide range of invertebrate groups. The course material will include info on the ecology of the animals being studied, video footage, colour photographs and detailed schematics.

The course is based at Monash University and (gently) takes advantage of the hi-tech facilities in the teaching labs there. All the microscopes are wired into computers, and this allows the scope image to be displayed on a computer screen, which makes the process of pointing and arm waving infinitely simpler.
The course will allow practitioners with little to moderate experience to become proficient at waterbug identification to family level. Participants are encouraged to bring their own material to identify at the workshop…this will ensure the groups we cover are relevant to them.
The course is run over three days (Wed 3- Fri 5 of April) at Monash University, Clayton, Victoria, and provides an intensive introduction / refresher to Family level ID.
The cost is $484 (including GST) and this includes course notes, forceps, morning and afternoon teas.
Numbers are limited to ensure a good student / teacher ratio.

Contact John Gooderham to register, email: flatworm@ozemail.com.au or
phone: 0447-893-519. More details available on the website(below) closer to the time .

Still not enough Bugs? Try - Death By Bugs!
Saturday the 6th of April - 10am-4pm.

This intensive session can be whatever you want it to be. Priority is given to students and researchers struggling with Genus/Species level identification, but we also have people that simply want to sit down with a microscope and refresh their bug knowledge with help on hand. Bring your own bugs, or sit down to a lucky dip sample. Cost is $100 (why? ....I just reckon.)
If neither of these options appeals ...or clashes horribly? Give us a yell and we can tailor a training course to your workplace.... it'll probably cost heaps more though. Contact John: details above.

Love from
The Waterbug Company (John Gooderham, Edward Tsyrlin and Tom Sloane)
www.thewaterbug.net .....it's catchy.

Waterbugs on Facebook!

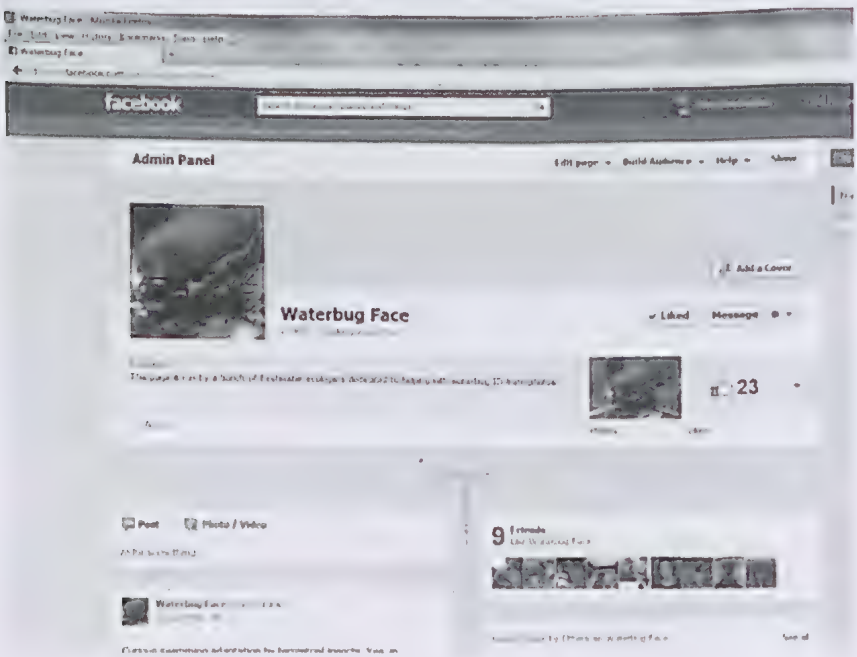
John, Ed and Tom at The Waterbug Company have started a waterbug ID page on facebook. Originally floated as an aid for Waterwatch co-ordinators and volunteers, we are opening access to pretty much anybody that has photos of waterbugs that they would like help identifying.

It works best with images of animals taken with smart phone cameras with macro function or better point and shoot cameras with a macro function. You would be surprised how many dodgy cameras do a reasonable job of macro. So long as the photo is (mostly) in focus, and the bug fills more than 1/6th of the frame we can usually have a crack at an ID. The ID level that is possible from photos varies greatly but Genus is possible for some of the more distinctive beasties...Family level is more often the case.

To submit a photo, or a waterbug question go to: www.facebook.com/waterbugface

The page is open for anyone to comment on, so feel free to muck in and offer ID suggestions on other people's bugs too. The hope is that this will promote chatting between people working on lots of bug ID's and that waterbug IDers who are starting out can get rapid feedback on their IDs at that crucial stage where the learning curve is dauntingly steep. Waterbug face doesn't cost anything to be involved in and is run on a volunteer basis.

Questions? email John Gooderham: flatworm@ozemail.com.au



SPECIES RECORDS NEEDED!

Models are only as good as the data they are based on.

I need any dragonfly data you have to improve and validate the distribution models I have built.

I am also currently testing a range of other taxa for comparison. If you, your students, or your previous students have **any species** data, that is either rare, from the edge of a species range, or simply from an area with little sampling, however messy, please get in contact.

alex.bush@mq.edu.au

UNIVERSITY OF TECHNOLOGY SYDNEY

Lecturer in Freshwater Ecology

UTS School of the Environment is one of five schools in the Faculty of Science, and is a leader in innovative practices of student learning and in research that seeks to understand natural systems and support their sustainable use. The School's academic and research staff include marine biologists, eco-physiologists, eco-toxicologists, plant and wildlife ecologists, geologists, and conservation biologists.

The School offers undergraduate programs in Environmental Biology, Environmental Forensics, Marine Biology, postgraduate programs in Environmental Change Management and Marine Science and Management, as well as Honours, Masters and PhD research degrees.

Recognising the importance of freshwater ecology in the School's strategic profile, and the contribution of science in this area to a sustainable Australia, UTS School of the Environment is seeking to appoint a freshwater ecologist who has a passion for teaching and is undertaking novel research in an area relevant to our research strengths.

UTS School of the Environment is a major contributor to the UTS research profile, with two University-level research strengths: the Plant Functional Biology and Climate Change Cluster and the Centre for Environmental Sustainability. You will have a research profile of national/international standing and a track record of attracting external funding, giving you the opportunity to supervise honours and postgraduate research projects.

You will have access to a full range of state-of-the-art equipment in modern laboratories, extensive field equipment, and a field station equipped for freshwater research and teaching.

Salary range: $87,179 to $99,759 pa. The University offers salary packaging plus 17% superannuation.

This position is available full-time on a continuing basis. Closing date: 1 Jan 2013.

Further Information:
http://www.jobs.uts.edu.au/job/job_details.cfm?id=782552&from

Professor William Gladstone, Head of School, (02) 9514 8272

CSIRO floodplain ecosystem response survey now open

CSIRO is conducting a survey to collect information on the response of floodplain river plants and animals to the Millennium Drought and recent La Nina flooding. We invite anybody with an interest in floodplain river ecology to participate.

The survey aims to cover a broad range of locations and responses in the southern Murray-Darling Basin, including information from researchers, managers, landholders and other stakeholders who live and work in floodplain river ecosystems.

We are interested in all types of observations of how floodplain plants and animals responded to the Millennium Drought and the recent floods, including anecdotal observations, routine monitoring, and scientific studies. We are especially interested in cases where plants or animals did not respond as expected.

The survey is being conducted online and only takes about 20 minutes to complete. All survey participants go into a draw to win a food and wine hamper. The survey's front page includes information about the CSIRO researchers involved, how your information will be used and ethics clearance.

The survey will be followed by more detailed interviews with participants who would like to be further involved in the project. If you would rather speak to us in person than fill out the survey, we would welcome the chance to talk to you.

The survey will be open until Friday March 1st 2013. Please follow this link to the project web page for more information and to access the survey: www.csiro.au/science/floodplain-response

Please feel free to forward the survey details to others who may be interested.

UPCOMING CONFERENCES

REGISTRATION & ABSTRACT SUBMISSION NOW OPEN!

Join us in Sydney for Climate Adaptation 2013

We are delighted to announce that the National Climate Change Adaptation Research Facility (NCCARF) will hold its annual national conference from 25–27 June 2013 at the Hilton, Sydney. Climate Adaptation 2013 will be the major Australian forum focussed exclusively on climate impacts and adaptation. It will bring together end-users and researchers from across Australia to share experience in adaptation and showcase activities, strategies and research.

Key Dates

Abstracts Submission Closes: 15th February 2013
Notification of Abstract Acceptance: 27th March 2013
Presenter & Early Bird Registration Closes: 11th April 2013
Climate Adaptation 2013 commences: 25th June 2013

Registration Type	Registration before 18th April 2013	Registration after 18th April 2013
Full Registration	$750	$950
Student Registration	$400	$500
Day Registration	$400	$400

Please note that payment must be received by 12pm AEST on the 18th April, otherwise you will be billed at the standard registration rate.
* Student registration is only available to full-time students. Proof of enrolment will need to be produced.

Full Registration includes:
Attendance to all conference sessions, social functions, lunch, morning and afternoon tea throughout the duration of the conference

Day Registration includes:
Attendance to all conference sessions, social functions, lunch, morning and afternoon tea for the day registered only. Day registration does not include any social functions

Registration is now open:

to register go to http://register.yrd.com.au/NCARF13/

Abstract submission is now open:

To submit an abstract go to http://www.nccarf.edu.au/conference2013/?page_id=128

Abstract Topics

1. Climate ready natural resource management
2. Food for thought: Food security in a changing world
3. Business as usual? Productivity and prosperity in a changed climate
4. Feeling the Heat: Planning for extreme heat
5. Climate adaptation and emergency management
6. Communication
7. The role of tools and knowledge in adaptation
8. The governance of adaptation
9. Decision-making under uncertainty
10. The economics of adaptation
11. Policy and regulation
12. Monitoring and measuring adaptation
13. Case studies of adaptation in action
14. Cities and infrastructure
15. Coasts
16. Ecosystems
17. Communities
18. Human health
19. Water resources
20. Other

Abstract submission closes on 15 February 2013

For more information please contact the conference organisers Jill Simmons or Mary Sparksman on nccarf2013@yrd.com.au or phone (07) 3368 2422

International Society for River Science: 3rd Biennial Symposium
Achieving healthy and viable rivers

Monday, August 5-Friday, August 9, 2013
Beijing, China

http://www.2013isrs.org/

The 3rd Biennial Symposium of the International Society for River Science will be hosted by Beijing Normal University, Beijing, China.

Conference Theme

Faced with the degradation of riverine ecosystems across the globe, this conference focuses on the achievement of healthy and viable rivers with an objective of consolidating knowledge on riverine ecosystem response to the impacts of natural and human pressures, and promoting multi-disciplinary solutions for protecting or restoring the ecosystems. All the researchers, managers, and students in related fields, such as hydrology, water quality and aquatic ecology, are invited to share in the search for more effective and science-based solutions to maintain our important riverine ecosystems.

Important dates

- Abstract submission: Latest deadline - March 15th, 2013
- Confirmation of acceptance: Latest deadline - April 15th, 2013
- Conference date: August 5-9, 2013
- Full papers for submission to Special Issues of River Research and Applications: 25th September 2013

Papers and abstracts

- Selected papers will be published in a special issue of *River Research and Applications* (SCI, Wiley-Blackwell).
- A book of abstracts will be published before the conference with the full conference programme. Papers will be considered for both oral (15 minute) and poster presentations and posters by post-graduate students are particularly encouraged.
- There will be special poster sessions for post-graduate students with awards for the best presentations sponsored by Wiley-Blackwell, the publisher of our journal *River Research and Applications* and sponsor of the ISRS.
- Abstracts for oral presentations should be of up to 500 words plus two illustrations (figures or tables). Abstracts for poster presentations should be of no more than 300 words.

STUDENT ANNOUNCEMENTS

Institute for Applied Ecology

$10 000 pa
Doctoral Scholarship Top-Up

Study with the Institute for Applied Ecology and you could be one of the best paid PhD students in Australia!

IAE Scholarship

The Institute for Applied Ecology (IAE) Doctoral Scholarship Top-Up is competitively awarded as a 'top-up' of up to $10 000 per annum for IAE PhD candidates who hold a stipend from any other source. This stipend could be from a University of Canberra scholarship, an employment scholarship or an international scholarship.

1st Class Honours Students – Pay special Attention!

If you received a 1st Class Honours award or equivalent from an Australian University, you may be eligible to receive an Australian Postgraduate Award scholarship from the University of Canberra (UC APA scholarship), worth $22 700pa, tax free. With this UC APA, and a relevant honours degree, you will be eligible to apply for the IAE Top-Up to receive up to $32 700 pa while you undertake your doctoral studies in Applied Ecology[1].

Other eligibility requirements

To be awarded the IAE scholarship top-up, all applicants need to be enrolled at the University of Canberra as a full-time doctoral student and have a project and a supervisor at the IAE[2].

About the IAE

The IAE is a research and teaching institute that produce work of international standing. IAE researchers hold distinctive strengths in basic and applied science, including in the following areas:

- Catchment systems
- Conservation biology
- Ecological health assessment
- Environmental chemistry
- Freshwater ecology
- Natural resource policy and planning
- Population modelling
- Sex determination and evolutionary biology
- Vegetation and wildlife management
- Wildlife genetics

[1] *For more information on the UC APA, see: http://www.canberra.edu.au/research-students/scholarships/domestic-scholarships2*

[2] *For information about potential PhD projects, see: http://www.canberra.edu.au/centres/iae/potential-phd-projects.php*

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Phone: +61 (2) 6201 2795 Website: www.appliedecology.edu.au
Email: IAEAdmin@canberra.edu.au

UNIVERSITY OF CANBERRA

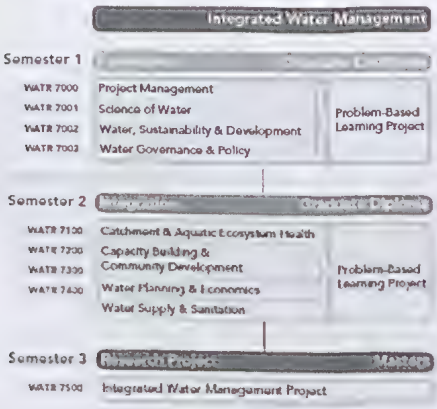
INTERNATIONAL WATERCENTRE

Master of Integrated Water Management

Graduate Certificate and Graduate Diploma
Full-time and part-time/distance

In the complex world of climate change and population growth, water professionals can no longer focus on a single aspect of water management. Solving water-related problems requires technical and scientific expertise and greater understanding and integration of environmental, social and political factors.

Program structure (Full-time)


Integrated Water Management
Semester 1
WATR 7000 Project Management
WATR 7001 Science of Water
WATR 7002 Water, Sustainability & Development
WATR 7003 Water Governance & Policy
Problem-Based Learning Project
Semester 2
WATR 7100 Catchment & Aquatic Ecosystem Health
WATR 7200 Capacity Building & Community Development
WATR 7300 Water Planning & Economics
WATR 7400 Water Supply & Sanitation
Problem-Based Learning Project
Semester 3
WATR 7500 Integrated Water Management Project

For part-time/distance see www.watercentre.org/education/programs/part-time

Qualification from four leading universities

Students enrol at The University of Queensland (Brisbane). The program is managed by IWC and delivered by lecturers from all IWC member universities. Upon graduation students receive a co-badged qualification.

Three of our member universities are ranked in the top 100 universities of the world in the Times Higher Education World University Rankings.

Great incentives to enrol

- Field trips (Western Australia, Stradbroke Island and others) are included in the tuition fees.
- Masters and Diploma students receive $1,000 toward professional development.
- Masters students also receive up to $1,000 to support their third semester project.

Practical and applied components

The program builds on students' professional experience to approach water-related problems holistically.

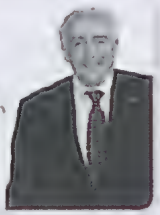
- **Lecture modules** teach knowledge and skills across a wide range of disciplines.
- **Team projects** allow students to apply their knowledge to real case studies in Australia and overseas.
- **Field visits** throughout Australia complement project work and give students first-hand water system experience and knowledge.
- **Network building** encourages students to establish links through the IWC's network of national and international specialists.
- **Skills development** allows students to gain practical skills to analyse and solve water-related problems.

Our graduates will acquire

- **Communication skills** across disciplines and sectors, and sciences and policy
- **Systems thinking skills** for the whole-of-water cycle
- **Collaboration skills** for cross sectoral teamwork
- **Problem-solving skills** for complex issues requiring difficult tradeoffs
- **Risk assessment and planning skills** to devise sustainable solutions
- **Adaptive and reflexive learning skills**, i.e. an ability to learn by doing and applying context-specific solutions.

Paul Greenfield, AO
Vice-Chancellor
The University of Queensland

There are no courses in Australia, and very few internationally, that take such an integrated approach to teaching and learning about water management.



www.watercentre.org

REGIONAL REPORTS

TASMANIAN REPORT

PUB NIGHTS IN TASSIE

While a major focus of the local ASL activities in Tasmania for 2012 was the inaugural Tassie ASL Forum, we also held our regular pub seminar series between May and September (abstracts provided below). The 2012 pub nights were well attended, and as usual, provided a great way for ASL members in Tas to get together.

Themes covered in the pub series this year included: projected climate change impacts on freshwater ecosystems in Tas; freshwater fish life histories and environmental influences; hydroelectric waterway management; and, Antarctic lakes and their microfauna.

As usual, presenters at the pub nights provided many 'take home messages' and put on some sterling performances. Here is an overview of the pub nights. Firstly, **Michael Grose** 'preached to the converted' and told us that climate change is real (!), and also provided some gloomy projections for regions in Tas which contain important aquatic biodiversity values. **Peter Davies** outlined what he, **Leon Barmuta**, **Regina Magierowski** and others are investigating with their NCCARF and LAP projects, which aim to formally identify hot-spots of projected change in freshwater ecosystems in Tas and brainstorm adaptation strategies. **John Morrongiello** provided an overview of his PhD research in Victoria and illustrated how influential environment gradients can be on life history attributes of freshwater fish species. **Alison Howman** talked us through recent successes and past and present challenges of Hydro Tasmania's Aquatic Environmental Management Program, which is one of the largest on-going aquatic programs in the state. Finally, John Gibson told us about his work on Antarctic non-charismatic microfauna and how distributions of these tiny critters can tell us a lot about the history of the continent.

This is my last newsletter article as the Tasmanian state representative, as **Regina Magierowski** as taken up the post (thanks Reg!). I'd like to thank ASL'ers in Tas for supporting me and the local events over the past few years, and also ASL (especially recent presidents and the Executive) for encouraging and financially supporting the recent activities in Tas.

Scott Hardie

ASL 2012 Pub Seminar Series, Tasmania: Abstracts

7 May 2012

Theme: Climate change and its effects on Tasmanian freshwater ecosystems

CLIMATE CHANGE PROJECTIONS OF TASMANIAN HYDROLOGY

Michael Grose, Antarctic Climate and Ecosystems CRC

There is now significant evidence that human activity, including the emission of greenhouse gasses, has led to a warming of the global climate system in recent decades and climate changes are projected to continue and even accelerate if the human impacts follow their current trajectory. Warming of the climate has profound effects on the hydrological cycle.
Climate change projections of future conditions under a set of plausible future emission scenarios are useful to plan for the future and devise adaptation strategies. The current generation of computer simulations by Global Climate Models (GCMs) are our best tool for making these climate projections, however they are spatially coarse so they do not give useful information at the regional scale that is most informative to assess impacts. Therefore, various 'downscaling' techniques are useful to gain insights at finer scales. The Climate Futures for Tasmania project produced a set of regional scale climate projections for our state, and used these projections in numerous applied analyses. A set of hydrology model simulations were performed using climate model data through a partnership between ACE CRC, Entura consulting (Hydro Tasmania) and DPIPWE. The set of projected runoff and river flows under climate change scenarios are a useful resource for future planning for Tasmanian water planning. These projections will be briefly described and copies of the full report will be made available. There are numerous further analyses ongoing at present aimed at ecology and biodiversity research, such as modelling stream temperature. The aspects of using climate model projections for these ongoing analyses will be discussed.

FIDDLING WHILE ROME BURNS? LAP AND NCCARF - IMPLICATIONS OF CLIMATE FUTURES PROJECTIONS FOR FRESHWATER ECOSYSTEMS

Peter Davies, Regina Magierowski and Leon Barmuta, Centre for Environment & School of Zoology, University of Tasmania

Two new projects are using the CFT projections for hydrology and temperature in order to scope the implications for future ecosystem management (NCCARF) and bioconservation (LAP).
As usual, PD will enthuse over some elaborate, dreamed up flow-charty things.
PD and LB will then tell a fairy story about how to plug complex data set A into poncy expert rule set B, push it through a risk assessment and attribute some GIS layers, in order to be able to say something semi-believable about:

- Management and Policy adaptation actions for protecting Tasmanian aquatic conservation values in the future;
- Implications for state and federal efforts to conserve aquatic biodiversity.

7 June 2012

A PYGMY'S TALE: LIFE HISTORY VARIATION ALONG ENVIRONMENTAL GRADIENTS

John Morrongiello, CSIRO, Hobart

Freshwaters are naturally heterogeneous environments and aquatic animals are exposed to a diversity of abiotic and biotic gradients that can act as potent selective agents. Much work has focussed on both assemblage level responses to, and among species comparisons along, freshwater environmental gradients. Less, however, is known of how species themselves respond to changing environmental conditions.
The freshwaters of south-east Australia encompass a range of environmental gradients associated with (among other factors) a diverse range of hydrological conditions. During my PhD,

I investigated the fitness consequences of variable life history trait expression, within and among populations, along environmental gradients in a freshwater fish, the southern pygmy perch (Nannoperca australis). I will discuss my work on traits associated with mate choice, reproductive investment and larval quality, spanning major fitness components within the life-cycle of this species.

6 August 2012

HYDRO TASMANIA'S AQUATIC ENVIRONMENTAL MANAGEMENT: RECENT SUCCESSES AND PAST AND PRESENT CHALLENGES

Alison Howman, Hydro Tasmania

Hydro Tasmania has responsibility for 53 of Tasmania's major lakes and at least 1200 km of natural creeks and rivers are influenced by hydropower operations. Every year, around 9000 gigawatt hours (GWh) of electricity is produced from over 30 hydro power stations. The water is managed for multiple ecosystem services including hydropower electricity generation, recreational amenity, irrigation, drinking water and ecological benefit, including protection of threatened species.

The Aquatic Environment Program aims to manage environmental risks ranging from fish migration, protection of threatened species, management of pests and pathogens, mitigation of the effects of changed operations arising from the Basslink undersea cable, to ensuring the sustainable management of lakes during drought. We also address problems from our past, including restoring ecosystem health to Lagoon of Islands. Throughout the process we aim to engage with the community around us.

3 September 2012

ANTARCTIC NON-CHARISMATIC MICROFAUNA: WHAT CAN THEY TELL US ABOUT THE HISTORY OF THE CONTINENT?

John Gibson, IMAS (occasionally) and University of Tasmania

When most people's minds turn to Antarctic animals they think of cute seals, cuter penguins, uncountable krill and gliding albatrosses. But none of these animals are truly Antarctic; rather, they are denizens of the Southern Ocean (except for, in some cases, inconveniences like breeding). The true Antarctic heroes are the microsopic mites, collembola, nematodes, tardigrades, rotifers, copepods and cladocera that survive year round in lakes and other habitats on the icy continent. The history of the study of these animals has gone through phases of initial amazement (Scott, Drygalski and friends in their spare time), an early appreciation of the diversity (mainly from Russian work, much of it poorly known in the west), long periods of little or no activity (everything on the continent came from somewhere else, didn't it, so why should we fund it?), attempts to sweep all observations under the carpet (if we try really hard we can ascribe nearly all these to European species…) , and finally, in the last decade, a real understanding of these fascinating animals. This talk will provide a stroll through these stages, and will talk about the messages that the animals have for us in terms of the history of Antarctica and the origins of its fauna.

MINUTES FROM ASL ANNUAL GENERAL MEETING

Australian Society for Limnology, Annual General Meeting , 28 November 2012, UNE Armidale NSW

(p = proposed, s = seconded)

1. Adoption of agenda: p = D. Ryder, s = B.Downes

2. Apologies: P.S.Lake, S. Hardie, R. Watts.

3. Acceptance of minutes of last AGM: p = D. Baldwin, s = R.Thompson

4. Matters arising: none

5. President's report:
   Welcome to another year of limnology and my last as President of ASL as we celebrate the 51st year of the Society.

   I would like to thank each member of the executive for their continued support and contribution to the myriad of teleconferences and emails since the Congress in Brisbane last September. I cannot thank Jacqui and the staff at ASN Events enough for their continued excellent service to the Society. It allows the Executive the time to focus more on progressing the Society rather than the mystic arts of accounting and administration. I also need to thank the Organising Committee for this year's Congress, so ably led by Michael Reid. The team includes Melissa Parsons, Matt Tighe, Mark Southwell, Martin Thoms and a plethora of patient postgrads including Karlie McDonald, Sarah Mika, Adrian Matheson, Bruce Murray, Munique Reid, Morag Stewart, Murray Scown and Rajeth Thapa.

   At the AGM last year in Brisbane I was asked a great question by Marg Hart, 'What is the plan to increase ASL membership?'; a question asked in the face of stagnating member numbers. Thanks to the exceptional work of the Executive and our members over the last year, I think ASL is in a more sustainable position to continue to represent the interests of limnologists long into the future.

   State-based activities have emerged as an excellent basis for connecting existing members and attracting new members to the Society, with the Executive approving annual funding of $500 to each state explicitly for these events. Recent successes include the Tasmania Symposium organized by Scott Hardy, a combined ASL-ASFB seminar series in the ACT organized by Evan Harrison, Queensland gatherings arranged by Sam Capon, and the congregation of NSW members at a meeting tonight. The Executive has received so many ideas from members on ways to promote limnology and the Society that we have proposed to formalize a funding scheme for these activities.

   The ASL website is how we communicate within and outside the Society. The more effective presence of ASL on the internet through our re-vamped ASL website and new Facebook page should also bode well for sustaining our long term membership. The new website was a lot of work and I would like to thank Jacqui and ASN Events for their help. Features such as the jobs/news page are a great addition and have been widely used by members. Similarly our Facebook page has over 100 friends and has been a great way to

communicate everything from seminars to jobs to sharing lifts to the conference among members. Thanks to Karlie McDonald, Mel Klamt and Laurisse Frampton for helping set up and managing the page.

That brings me to the student members who are the future of the Society. On the Monday before the congress started we had over 40 ASL postgraduate students attend workshops on scientific writing and media communication. The workshops were hosted by the student representatives on the Executive to contribute to the professional development of ASL's student members. I would especially like to thank Teresa Mackintosh and Laurisee Frampton for their organization and convening of the workshops, and I hope these events continue in future years.

Finally, we hope to continue to improve ASL's influence at a national level. ASL has negotiated to represent the Aquatic Cluster federally at Science and Technology Australia (formerly FASTS) for 2013-14. We have already bought issues of funding freshwater science to better inform policy and improved career pathways for scientists to the STA Board, and will continue to pursue these over the next two years.

I would like to again thank the executive for their contributions and look forward to watching ASL continue to prosper. (p = R.Marchant, s = J. Chambers)

6. Secretary's report: Five teleconferences were held during the year and the minutes of these were published in the newsletter. Only a small amount of routine correspondence was received during the year mostly concerned with outside bodies that the ASL is registered with e.g. the Copyright Agency in Sydney. The bulk of ASL's paper records have been deposited in the archives of Museum Victoria to provide safe keeping and to remove them from the Entomology Lab at Museum Victoria where they occupied much needed space. From the middle of 2013 these records will be accessible in the archive section of the museum. (p = R.Lester, s = B.Timms)

7. Treasurer's report: (financial statements are attached below)

   Overall the society continues to be in a healthy financial state with income and expenditure continuing to balance.

   Last year's conference was more expensive than the previous year in Thredbo, but registration and fees were higher and sponsorship was only slightly lower, thanks to the efforts of ASN events and the organising committee, so we increased our profit from the conference to $25,889.

   The society's investment accounts continue to provide income to help students attend conferences. Interest rates have decreased over the last year, so returns have also been lower, but the change to a 12-month term has maximised those returns. We have also instituted some new support streams for members, with funds now available for state-based activities, additional student travel awards, and case-by-case consideration of requests for support for projects likely to increase the profile of, and benefit, members.

   The society has received an unqualified audit statement again this year. We also addressed the issues that the auditor raised last year, providing corrected contact details for executive members and improving the process and transparency in how expenditure is now authorised. All payments are now authorised by the treasurer and by one other member of the executive in writing before payments are made.

Currently, as of August 9th, the society has 394 financial members consisting of 4 emeritus members, 22 life members, 292 ordinary members and 78 student members, representing an overall increase in membership numbers of 50% from August last year. This includes a substantial increase in the number of financial student members compared to last year at approximately the same time (44). While the figures from last year did not include those who reinstated financial membership for the conference, this still represents a large increase after several years of declines, which is positive. (p = R. Marchant, s = A.Sharpe)

8. Auditor's report: This was read out by the secretary and a copy of the unqualified report is attached below. (p = J.Davis, s = B.Timms)

9. Newsletter editor's report: R.Thompson highlighted some of the new features of the newsletter such as notes on the early days of the society. He especially thanked those who sent contributions for the section 'reports from the trenches'. He has decided to step down as editor and Sam Capon has volunteered to take on the role. She will be assisted by the three deputy editors who have been helping Ross.

10. ASL medal: This year the medal was awarded to Dr Bruce Chessman of the NSW Office of Environment and Heritage.

    During his career, Dr Bruce Chessman has produced influential research on topics ranging from the dietary preferences of aquatic insects and the ecology of native turtles (His PhD in 1978), to major applied issues such as the assessment of river condition, aquatic biodiversity conservation, environmental flows, and more recently the ecological effects of climate change.

    One of the distinguishing aspects of Bruce's career is that his research has been almost entirely conducted in State government natural resource management agencies in Victoria and NSW. He has been almost unique in his ability to combine robust theoretical ecology and applied science to directly influence the conservation and rehabilitation of freshwater ecosystems in Australian and overseas. Bruce has been at the forefront of some of the most important developments in applied freshwater science and has quietly influenced many of these initiatives. In particular, he has developed a number of significant and widely used freshwater assessment tools: pioneering the development of rapid assessment techniques for macroinvertebrates, devising the widely used SIGNAL biotic index, and collaborating on the development of ecological predictive models for environmental watering. This research has led to the publication of over 130 scientific publications cited over 1200 times.

    Early in his career, Bruce decided to actively improve natural resource management by supporting government decisions via his scientific research. Bruce's work has often breached the much discussed barrier between science, policy and management. Bruce has also provided great scientific leadership, support and guidance for many scientific staff in multiple government agencies and universities, as well as supervising a number of postgraduate students in a number of Australian universities. Through his generous leadership and assistance, Bruce has encouraged others to think more critically about their work and underpin their applied science with sound ecological theory. In his quiet and understated manner, he has provided a strong positive influence to many scientists and water resource managers.

    Above all, the role model Bruce provides for placing the management of Australia's freshwater ecosystems firmly in the context of strong theoretical ecology is a profoundly important role for which he deserves the recognition of ASL through the award of the 2012 ASL medal.

11. Early Career Award: This year the award was given to Dr Angus Webb of Melbourne University.

    Angus was awarded his PhD from the University of Melbourne in 2002 for a field-based investigation in Marine Ecology dealing with the effects of copper antifouling paints on the ecology of marine sessile epifaunal assemblages. Since then Angus has forged a career in ecological risk assessment and modelling of freshwater systems. After his PhD he worked for five years as a Research Fellow at Monash University's Water Studies Centre where he honed his modelling skills in examining human impacts on large-scale ecosystems. Since 2006 Angus has worked as a Research Fellow (and more recently Senior Research Fellow) at The University of Melbourne where his research has moved on from the large-scale assessment of impacts to addressing the restoration of ecological function in impaired systems. A primary focus of his work at The University of Melbourne has been on causal inference in human-environment systems and in particular establishing outcomes of environmental flows.

    Angus has made valuable contributions to Australian limnology through his research on the design and implementation of models to guide the efficient and effective delivery of environmental water. For the last decade, Angus has actively contributed to the inclusion of freshwater science in on-ground activities through the substantial applied benefits of his work and his capacity to communicate successfully to a variety of audiences. In the 9 years since completing his PhD Angus has co-authored over 30 peer-reviewed publications and presented at many national and international conferences, has co-edited a special issue of Freshwater Science, and reviewed manuscripts for over 15 different journals. Most recently Angus has delved into teaching at the University of Melbourne, and combined with his successful supervision of honours and PhD students, this highlights his commitment to improving the knowledge base of freshwater science in Australia.

    Angus has a unique skill set that facilitates communication among ecosystem modellers and freshwater ecologists to improve our understanding and management of water resources. With his diverse portfolio of successes already, Angus is destined to be an effective ambassador for Australian limnology.

    We invite Angus to present the 2013 Christy Fellows Lecture at next year's Congress.

12. Bill Williams'Travel Award: The secretary reported that no applications for this award had been received since the last AGM. He encouraged students who wished to present their work at international meetings to consider applying. Sufficient interest has accumulated in the account to support at least one and possibly two students in the next year.

13. Student travel awards: Eleven students each received $500 to help cover their costs of attending the Armidale Congress. These were: S.Strachan, P. O'Toole, C. Bartholomaeus, M. Klamt, S. Hatton, V. Vysna, L. Frampton, T. Mackintosh, S. Hay, A. Dusting, C. Barbosa.

14. 52nd Congress: To be held in the first week of December 2013 in Canberra. Details will be forthcoming from R.Thompson and ASN in the new year.

15. Future Congresses: A.King and E. Garcia have proposed holding a joint congress in Darwin in 2014 with the Australian Society for Fish Biology.

16. Election of the Executive:
    President: B. Robson (p = R. Marchant, s = T. Doeg)
    Vice President: F. Sheldon (p = B.Robson, s = R. Lester)
    Secretary: R. Marchant (p = D. Ryder, s = B. Robson)
    Treasurer: R. Lester (p = R.Marchant, s = B. Downes)

    Regional executive:
    Tasmania – R. Magierowski (p = M.Brock, s = S. Hardie)
    SA – M. Bald (p = K. Aldridge, s = R.Marchant)
    NSW – G. Dunkerley (p = E. Turak, s = B.Chessman)
    QLD – C. Leigh (p = S. Capon, s = A.Boulton)

    Student representatives:
    T. Mackintosh, D. Cortez, S. Hatton, A. Bush and C. Bartholomaeus were nominated and seconded by a group of student members.

    These members were elected unopposed.

17. Election of the Auditor: R.Marchant proposed (s = R.Lester) that Coster Galgut Pty Ltd be re-appointed. This was carried.

18. Student prizes: (announced later at the congress dinner)
    Poster prize – D. Cortez (UTS)
    Honours prize - V.Kunkel (UNE)
    PhD prize - A. Bush (Macquarie University)
    MFR prize (presented by M. Finlayson, editor MFR) - R. Paice (Murdoch University)

    The Apple prize was presented by the students to B. Timms

19. General Business:
    (a) Revision of the ASL constitution: D.Baldwin led members clause by clause through the proposed alterations to the constitution, which had been foreshadowed at last year's AGM and publicised earlier in the year (via email to members). A vote was taken on each modified clause, all of which were approved unanimously. The revised constitution will be published in full on the society's website. D. Ryder proposed a vote of thanks to D.Baldwin who had taken on the responsibility for modernising the constitution. This was warmly endorsed by the members.
    (b) NSW members: G. Dunkerley the new representative for NSW would like to meet other NSW members and discuss possibilities for state based meetings.
    (c) ASL sponsorship of limnological activities other than state based meetings: The executive is willing to examine proposals from members that have a limnological theme, but do not involve local meetings of members. For example this year we have made some small grants to members who are writing books on freshwater subjects and need financial help to hire illustrators or professional index makers. The new executive will produce a form which members can use to make such proposals. The aim is to formalise this process, make it transparent to all members and reduce its ad hoc nature.

(d) Membership for older members: The executive has received a number of queries from retired members who wish to retain their connection with the society but are unlikely to attend congresses. The new membership category of Honorary Life Membership (see the amended constitution) should suit these members, who can nominate themselves for this category. Granting of such membership will be examined by the executive on a case by case basis.

(e) Lungfish chapter: Jenny Davis and Jane Chambers proposed that a chapter of the ASL be formed consisting of older members (perhaps those born before the formation of the ASL in 1961). The aim of the chapter would be to mentor junior freshwater scientists. A summary of this proposal will be sent to the ASL web site.

(f) Conference costs: B.Downes noted that conference costs have been increasing in recent years. She wondered whether some of the profits from conferences could be returned to members by reducing the cost of subsequent meetings. D. Ryder in dicated that this had happened to a limited extent. R. Lester will examine recent trends in conference expenditure and report to the executive.

Meeting closed at 2.30pm

AUSTRALIAN SOCIETY FOR LIMNOLOGY INC

REG No. A2000618 ABN 54 606 483 228

STATEMENT BY MEMBERS OF THE COMMITTEE

The committee have determined that the Association is not a reporting entity.

In the opinion of the committee the financial report:

1. Presents fairly the financial position of the Australian Society for Limnology Inc as at 30 June 2012 and its performance for the year ended on that date.
2. At the date of this statement, there are reasonable grounds to believe that the Australian Society for Limnology Inc will be able to pay its debts as and when they fall due.

This statement is made in accordance with a resolution of the Committee and is signed for and on behalf of the Committee by:

Darren Ryder
President

Rebecca Lester
Treasurer

Dated this 9th day of October 2012

HARB54704

REG. NO. A20309K ABN 54 606 483 226

INCOME & EXPENDITURE STATEMENT FOR THE YEAR ENDED 30 JUNE 2012

		2012		2011
	$	$	$	$
INCOME				
Bank Interest - B Williams Award Deposit	2,933		3,844	
-General	11,246		11,748	
		14,179		15,593
Conference:				
- Registration & Fees	195,860		145,749	
- Sponsorship	40,350		47,000	
		236,210		192,749
Membership Subscriptions		25,195		19,927
Sundry Income		115		1,718
TOTAL INCOME		$275,700		$229,986
EXPENSES				
Audit & Accounting Fees		2,350		2,700
Awards incl Bill Williams Travel Award		2,000		1,900
Bank Charges		2,286		1,441
Bookkeeping Fees		900		1,145
Conference:				
- Student Travel Award	4,000		4,800	
- Student Prize	500		1,500	
-Venue, Accomm, Catering, Travel, etc				
-Accommodation	27,044		36,200	
-Catering	79,401		65,853	
- Venue, Hire of Equipment, etc	47,072		21,224	
- Management Fees - ASN Events	52,305		48,279	
- Sponsorship Commission Paid			7,050	
		210,321		184,906
Insurance		1,892		1,591
Miscellaneous Expenses		193		42
Newsletter, Printing & Publications		10,195		9,133
Stationery, Telephone & Postage		1,998		1,033
Subscriptions & Meetings- FASTS		1,805		2,780
TOTAL EXPENSES		$233,940		$206,670
PROFIT FROM ORDINARY ACTIVITIES		$41,759		$23,316
RETAINED PROFITS AT START OF YEAR		$234,538		$211,222
RETAINED PROFITS AT END OF YEAR		$276,297		$234,538

REG. NO. A20309K ABN 54 606 483 226

STATEMENT OF ASSETS & LIABILITIES AS AT 30 JUNE 2012

	2012	2011
	$	$
CURRENT ASSETS		
Nat Aust Bank - Cheque Ale 03-508-9711	956	3,129
Nat Aust Bank- Cash Maximiser 59-420-6427	51,217	50,117
Nat Aust Bank - National Term Deposit	82,221	79,897
Nat Aust Bank- Travel Award Term Deposit	50,390	48,757
Nat Aust Bank - A/C 5864162640081	112,154	105,053
Prepayments	75	1,592
Deposit - Events & Conference	100	16,145
TOTAL CURRENT ASSETS	$297,113	$304,690
TOTAL ASSETS	$297,113	$304,690
CURRENT LIABILITIES		
Receipts in Advance - Conference	17,884	63,851
Sundry Creditors	300	
GST Payable	2,631	6,301
TOTAL CURRENT LIABILITES	$20,815	$70,152
NET ASSETS	$276,297	$234,538
MEMBERS' FUNDS		
Retained Profits	$276,297	$234,538

AUSTRALIAN SOCIETY FOR LIMNOLOGY INC

REG. NO. A20309K ABN 54 606 483 226

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30 JUNE 2012

	2012	2011
	$	$
CASH FLOWS FROM OPERATIONS		
Receipts from members	25,264	19,927
Receipts from conference	191'149	246,500
Payments to suppliers & others	(220,223)	(214,496)
Interest received	13,680	16,611
Other Income	115	1,718
Net Cash (used)/provided by Operating Activities	9,985	70,261
CASH FLOW FROM INVESTING ACTIVITIES	Nil	Nil
CASH FLOW FROM FINANCING ACTIVITIES	Nil	Nil
Net Increase in Cash Held	9,985	70,261
Cash at Beginning of Financial Year	286,953	216,692
Cash at End of Financial Year	**296,938**	**286,953**

AUSTRALIAN SOCIETY FOR LIMNOLOGY INC

REG.No A20309K ABN 54 606 483 226

STATEMENT BY MEMBERS OF THE COMMITTEE

The committee have determined that the Association is not a reporting entity.

In the opinion of the committee the financial report:

1. Presents fairly the financial position of the Australian Society for Limnology Inc as at 30 June 2012 and its performance for the year ended on that date.
2. At the date of this statement, there are reasonable grounds to believe that the Australian Society for Limnology Inc will be able to pay its debts as and when they fall due.

This statement is made in accordance with a resolution of the Committee and is signed for and on behalf of the Committee by:

Darren Ryder
President

Rebecca Lester
Treasurer

Dated this 9th day of October 2012

HAR854734

AUSTRALIAN SOCIETY FOR LIMNOLOGY INC

Reg No.
20309K
ABN: 54 606
483 226

Independent Audit Report for the year ended 30 June 2012 to the members of Australian Society for Limnology

We have audited the financial report, being a special purpose financial report, of the Australian Society for Limnology for the year ended 30 June 2012 which comprises Statement by Members of the Committee, Income and Expenditure Statement, Statement of Cash Flows & Statement of Assets & Liabilities.

The committee is responsible for the financial report and has determined that the accounting policies used are appropriate to meet the requirements of the Associations Incorporation Act (Victoria) and the needs of members. The committee's responsibilities also include establishing and maintaining internal control relevant to the preparation of and fair presentation of the financial report that is free of material misstatement, whether due to fraud or error, selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

We have conducted an independent audit of this financial report in order to express an opinion on it to the members of the Australian Society for Limnology Inc. No opinion is expressed as to whether or not the accounting policies used are appropriate to the needs of the members. We conducted our audit in accordance with Australian Auditing Standards. These Auditing Standards require that we comply with relevant ethical requirements relating to audit engagements and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluation the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the committee, as ell as evaluation the overall presentation of the financial report.

The financial report has been prepared for the purpose of fulfilling the requirements of the Associations Incorporation Act (Victoria). We disclaim any assumption of responsibility for any reliance on this report or on the financial report to which it relates to any person other than the members, or for any purpose other than that for which it was prepared.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Audit Opinion

In our opinion the financial report presents fairly, in all material respects the financial position of the Australian Society For Limnology Inc as at 30 June 2012 and the performance for the year then ended.

Coster Galgut Pty Ltd
ABN 66 005 054 866
Chartered Accountants
Lindsay Coster FCA
25/10/2012

CONFERENCE REPORTS

ASL 51ST CONGRESS - UNIVERSITY OF NEW ENGLAND

This was the first time that ASL had ventured to the University of New England and the New England Tablelands of NSW, and we hope all the delegates found the conference and the venue interesting and enjoyable. UNE provided a leafy venue for the Congress with lunches on the lawns of the Booloominbah homestead and breaks in the gardens outside the lecture theatres. The weather held out for the majority of the conference (sorry to those on the mid-conference field trips) and was unseasonally warm given Armidale is most notable for its chilly winter weather.

The Congress theme of 'Life at the Edge: Boundaries, ecotones and links in freshwater

Ecosystems' was reflected in the diversity of the 108 talks and 13 posters presented to an audience of over 160 ASL members and delegates. We have received a number of positive comments from the introduction of the 10 minute 'speed talks' for those presenting a short research note and wanting a larger audience through only 2 concurrent sessions. Ideas for next year welcome.

Thank you to all who attended the Congress, and a special thanks to the rest of the Organising Committee, including Melissa Parsons, Matt Tighe, Mark Southwell, Martin Thoms and a plethora of patient postgrads including Karlie McDonald, Sarah Mika, Adrian Matheson, Bruce Murray, Munique Reid, Morag Stewart, Murray Scown and Rajeth Thapa.

See you all in Canberra in 2013.

Michael Reid and Darren Ryder

STUDENT WORKSHOPS

Forty three student members made the trip to the 51st Congress and enjoyed a series of workshops on the Monday before the conference. Prof Andrew Boulton opened the workshop with tips on writing presenting 'Ten common errors in scientific communication'. Dr Yoshi Kobayashi then provided a fascinating presentation on 'Scientific communication: a perspective from a scientist with English as a second language' that had the crowd engaged and entertained. The final session for the day was Prof Rob Morrison from Flinders University who ran a training workshop on how to communicate science with the media. Students prepared media releases on their research, and then conducted radio and television interviews that were filmed and played back to the engrossed audience. Thanks to the presenters for their encouragement, and all the students who gave up their day to attend the workshops.

Darren Giling and Adrian Dusting (in his good shoes) preparing a press release

Talk to the hand! Rob Morrison interviews Alisha Steward on the importance of dry rivers

POST CONFERENCE CANOEING

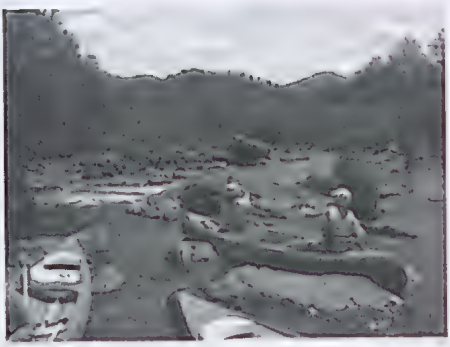
A small but dedicated group of limnologists headed to the Nymboida River after the conference to sample the aquatic delights of coastal streams in northern NSW. Day 1 was tubing through the rapids and an attempt at a Guinness book of records for the longest chain of limnologists tubing a river system. Day 2 was a long 18km paddle along the Nymboida River through spectacular countryside with lunch in the shade on a cobble bar. It was a hoot, no one got hurt but everyone got wet, and not always by choice.

Thanks to everyone, pictures below for those that missed it.

The line-up

Ebor Falls on the way to the Nymboida

Teamwork! The calm before the storm



The terror of the rapids

The end – 18km of paddling

2012 ASL DOOR PRIZE REPORT

It was Donald Rumsfeld that came up with the famous quote about known knowns, known unknowns and unknown unknowns. He may not be remembered for any of his other achievements (like invading Iraq), but will always be remembered for that small quote.

Similarly, we may never remember much about the 2012 AFL Grand Final, but the observation from one of the commentators that "We've had four seasons in one day here at the MCG, and none of them have been summer" will always be associated in my mind with that match.

We could include here as memorable, a myriad of quotes from Mitt Romney (and his wild and wacky colleagues), Tony Abbott (and his colleagues) and Archbishop George Pell (all his own work, I suspect). While they may not be remembered in the future for their achievements, some of their smaller contributions to the English narrative will be remembered.

And so it is with the ASL annual conference. The important events (such as talks and the like) will soon fade, but over time, it will be the small things that reside in the long-term memory of the conference. And it is these things that are honoured by the ASL Door Prize.

Coming to UNE here in Armidale has been a bit of a revelation. You know you are in a modern university when there are buildings that house a Centre for Water Policy and a Department of Natural Resources along with the more traditional departments of Zoology, Botany and Psychology. And you know you are in the country when there is an Institute for Rural Futures and a Department of Rural Health and Medicine.

But you may well consider to be living on the edge when your University has a Beef Cattle Unit and a Poultry CRC. And what happens in the building marked on the map as "Meat Sciences" may lead us to wonder exactly where we are.

And you know it is probably a University of the future when the Post-Graduate Centre has a sign on the door that says "closed until further notice" while the UNE Marketing and Public Affairs rooms next door appear to be undergoing a major upgrade and renovation.

Or if you look at the colour-coded map of the campus in the delegates handbook, where purple indicates the Faculty of the Professions, and light green indicates the Faculty of Arts and Sciences (which I assume are only hobbies rather than real professions).

But onto this years nominations for the 2012 ASL Door Prize (and get your notebook out THERESA MACINTOSH – these are the real important people in the society).

Normally, the ASL Organising Committee gets the opening nomination – either for spelling Limnology wrong (1999 in Lake Taupo), or the one-and-only ever ASL mug (1997 Albury), or for the concept of a Fork 'n' Walk Dinner (2002 Margaret River). These were back in the good old days, when a bunch of over worked members put the conference together. The organisers could always be relied on to stuff something up, and were always making my job just a little easier. However, since ASN became involved, every thing gets done properly and efficiently, so I have to make up all sorts of extra stuff for this presentation. Give us a break ASN – can't you introduce just a little something wrong each year, so I don't have to work so hard.

And simply putting the apostrophe at the end of the venue location "The 'Stro" rather than the beginning on page 14 may seem like a big thing to you, but it simply doesn't cut it in the Door Prize universe.

The conference started well with our esteemed international guest BILL RICHARDSON being nominated on three counts:

- 1 for the gratuitous insult about Australian drinking habits;
- 2 for excising Canada from the map of North America; and
- 3 for the new method of hiding data from scrutiny by making the graphs really, really small (and of course blaming PowerPoint for the error).

As the conference wore on, the first nomination had to be withdrawn as it was obviously true, and truth has no part in the Door Prize considerations.

Delegates from management agencies would have got a scare from JASMYN LYNCH's talk. If the dangerous proposition of actually looking at the evidence that backs up many of our long held beliefs ever catches on .....

Speaking of belief systems, I think I know how KARLIE McDONALD created her conceptual models and Baysian Belief Networks. Simply take a spider, feed it serious quantities of LSD, let it weave a web, and take note of the resultant pattern. And Karlie clearly hasn't heard of the Door Prize campaign against presentation of confusing MDS plots.

Luckily for her, the committee was too distracted by statistical approaches such as LINKTREE, TITAN, OpenBUGS, Binary Reach Matrices, TOPSIS, Entropy Analysis and the Convex Hull Method to take the nomination any further. You may win the battle against MDS this year, but the fight goes on.

I suspect that DARREN RYDER's application to join the board of the Armidale Tourist Authority might not be looked on too favourably. Convincing us that we are conducting the conference on top of a toxic time bomb, and that we are all likely to go home contaminated with Class I carcinogens may not help his application.

But I suspect I know the destination of the waste removed from the old Gasworks site. It was simply trucked down the road to the local cake and biscuit factory, stained yellow, solidified, cut into small squares and cunningly hidden in some of the cakes served here at afternoon tea.

You know you are important (still taking notes Theresa, I hope) when you don't actually need a last name. Madonna, Kylie, Kevin .... we all know who they are. Referring to a change of speaker in a future session, DARREN RYDER (again!) announced the replacement speaker would be .... Martin. No last name. But most of us knew exactly who he was talking about. Now that's important.

ASL is always one to embrace new technology, but still maintain rigorous scientific credibility. And so it was that the ASL App survey conducted following Barb Downes Medal presentation followed the strict scientific principles we are proud of:

- Random sample selection (well, actually only those with smart phones, and who knew how to use them);
- Measurement of complex response variables (yes or no);
- Detailed statistical analysis and result presentation (a pie chart)
- Timely and efficient delivery of results (60:40, but not sure which way).

REBECCA LESTER (aka Dr. Lester) made a convincing case for the use of well tested models for prediction testing in Limnology, both in Australia and potentially in similar environments overseas. But her game became clear by declaring that "wouldn't it be nice if we could test these predictions in ... say ... Turkey", along with a map of suitable overseas sites that included all the great tourist destinations across the globe.

[A Darren Ryder visual joke here – you had to be there!]

We're a slick organisation here at the ASL, as anyone who attended the AGM would attest. RICHARD MARCHANT, after about 150 years of being ASL secretary, really knows how to run an efficient meeting (not yet he doesn't!). And DARREN BALDWIN carefully led us through the vote on the new constitution, endlessly explaining and voting on each of the myriad clauses. Eventually, the explanations disappeared and it was just "Clause 243 .... Vote". I suspect it was exhaustion when the final clause was unanimously voted for, with it's reference to "Darren", "Supreme Leader" and "your first born". (any-one wishing to pursue this theme further is directed to the wonderful Peter Cook and John Cleese 1970 film The Rise and Rise of Michael Rimmer").

A few quick nominations:

- SAMANTHA CAPON for trying to grow pens as a crop in the northern MDB;
- MARK SOUTHWELL and the "money slide" (amongst other things);
- ANGUS WEBB's MOTHER (Angus should know that only Shane Warne can get away with blaming his mum for things that go wrong);
- JANE ROBERTS and the Pudding Test;
- SALLY HLADYZ for the effort in getting back into residence after hours without her card;
- And SCOOTER (who is so important Theresa, that he doesn't need either a first or last name) for valiantly trying once again, and failing once again, to win the prize.

The UNE maintenance crew deserves a mention for allowing a broken tap in the Men's toilet to run throughout the entire conference dedicated to the wise and efficient use of water resources. I suspect they are waiting for a Federal Infrastructure Grant under the MDB Plan before they can change the washer.

JANE CHAMBERS made a valiant effort to win this year with her crystal ball (used for good and not evil). And it was a close thing. But Jane has won the prize before and a dual Door Prize winner would require a change to the ASL Constitution to introduce a new membership category – not only would we need Ordinary members (am I the only one who finds that vaguely offensive), Student members, Life members, Institutional members, and Honorary Life members – but we would need a category for ASL Legends. Sorry, Jane, due to the implications for the society, no-one can win it twice (but the Door Prize rules a relatively fluid and who knows what will happen in the future – don't give up hope).

Then RALPH MacNALLY came along a completely changed my view of aspects of theory. Not Landscape ecology theory, but the theory behind how to get people to change their views. Early versions of the theory relied on thumb-screws, steel spike and Iron Maidens (the Spanish Inquisition model), while later versions relied on smart, well-dressed men and women arriving at your door to expound the glory of goodness (known as the Mormon, or Tom Cruise model). The MacNally model of changing opinion involved a blend of humour and insults, followed by hypnotic pacing

and gentle personal insights. As the talk goes on, you enter a relaxed receptive state and are completely unaware that he has planted subliminal messages in your brain, so that Landscape Ecology actually sounds like a good idea. (Again, for a further insight, check out Simon the Likeable from Get Smart – even looks and sounds a bit like Ralph).

But Ralph is famous enough that he doesn't need a Door Prize. I'm sure if we showed his picture to a group of … say … Meat Science students, their reaction would be "Hey, that's Ralph, we know him."

But onto this years winner. And this will be the shortest announcement in Door Prize history. Exactly 17 syllables as it transpires:

How to Win the Prize

Carbon Floodplains Creeks and Flies

KIM JENKINS Surprise

For the introduction of several Haiku into an ASL talk, Kim takes the 2012 ASL Door Prize for Armidale.

Congratulations!

FROM THE ARCHIVES....

Recollections and ruminations from long-standing ASL members:

snips, slips, quips and tips

Title, Name and Position:

Professor Jenny Davis

Professor of Freshwater Ecology, School of Biological Sciences, Monash University

Year first joined ASL: *1978*

First and most recent ASL conference you attended:

My first conference was at Tallangatta in 1978. There were four of us from UTAS Zoology (myself, fellow postgrad Piers Allbrook and academics Alastair Richardson and Roy Swain). The conference was small enough to fit into the local community hall (no concurrent sessions) and accommodation was in tents (for most of us) in the paddock next door. The first people I met were Ian Campbell and Richard Marchant - as ASL secretary and treasurer they were on the registration desk. The talks were mainly on fish and bugs and flowing waters. There were not many other female students and the weather was very cold (a fact reinforced by sleeping in a tent) but my overwhelming impression was that it was scientifically interesting and great FUN.

My most recent conference was at UNE three weeks ago. Differences: an academic venue, professional conference organisers, three concurrent sessions, talks ranging from genes to ecosystems and lots of other topics, a much better gender balance and still scientifically interesting and great FUN.

Snips (what floats your boat/ fires you up limnologically)?

Water – I have always been fascinated by water. Early memories of building mud dams in a very small stream just down the road (still there) and later catching tadpoles in small ponds further afield (now a car park) were the start of a life-long fascination with water and the things that live in it. Swimming, snorkelling, diving, kayaking and landscape photography are my favourite recreational activities. This

gives me plenty of contact with water, especially important now that I spend most of my working hours in front of a computer. Arid zone waterbodies hold a special fascination for me, possibly because I grew up in a cool, temperate state where water was plentiful, and very much taken for granted, at least until the recent decadal-length drought.

Slips (serendipitous moments or valuable lessons gained from unintentional bloopers/ accidents encountered over the course of your membership):

The positive feedback from ASL members to the first talk I gave on my PhD research on waterpenny hydrodynamics at ASL in Queenstown in 1980 was amazing. This, perhaps more than anything else, gave me the confidence to embark on a lifelong career in aquatic research. This was followed by the enthusiastic response to the proposal put by myself, Stuart Bunn, Jane Chambers and Marg Brock at the ASL conference in Mt Gambier, in 1984, to hold the 1985 ASL conference in WA. It would be the first time that ASL would hold an annual meeting away from eastern Australia. Despite mutterings that it was too far away and too expensive, and the organising committee were too young and too inexperienced, it was subsequently deemed a success (at least by us) and we believe it was the start of a truly national society. We raised enough sponsorship to bring Professor Noel Hynes from Canada to give the keynote address. Not only was Noel a pre-eminent international freshwater ecologist, he was a warm and inspirational person who provided much encouragement to student and early career researchers. We also held the first ever conference fun run (remember those). Peter Davies (UWA) could not participate because he forgot to bring his running thongs and all participants were duly awarded the Door Prize.

Quips (earliest ASL-related memory that amuses and/or inspires you, or that you just can't shake):

Tim Doeg's Door Prize award speeches. I think I have heard all of them – although I cannot quote any – dinners and alcohol might be the problem there. Tangible evidence that limnology can be enjoyed in many forms – humour merely being one of the lesser known ones.

Tips (advice you have, of any sort, for newer ASL members):

Resilience, resistance and persistence – current buzz words in my area of research – but also applicable personally to a career in limnology. Hang in there, despite the ups and downs of research funding, the uncertain job prospects, the negative and destructive manuscript reviews, etc, ...the list is long, limnology (in all its forms) is an absolutely fascinating, important and rewarding area to work in.

A call for contributors!

Are you a longstanding member of ASL? We'd love to hear your stories!

If you'd like to contribute to this section (or you think we could talk you into it), please email Cath (c.leigh@griffith.edu.au).

HIGH PROFILE LIMNOLOGY

This section will highlight high profile papers from limnology that have appeared over the last year and which have an ASL connection. Please feel free to nominate papers, books or reports for this section. Inclusion will be at the Editor's discretion. ED.

Ross Thompson is a Senior Lecturer and ARC Future Fellow at Monash University. He is using this opportunity to gratuitously promote his own work, and because he ran out of time to find another paper.

Freshwater Biology

Freshwater Biology (2012) doi:10.1111/j.1365-2427.2012.02808.x

SPECIAL REVIEW

Freshwater food webs: towards a more fundamental understanding of biodiversity and community dynamics

ROSS M. THOMPSON*, JENNIFER A. DUNNE†,‡ AND GUY WOODWARD§

*Australian Centre for Biodiversity and School of Biological Sciences, Monash University, Clayton, Vic., Australia

†Santa Fe Institute, Santa Fe, NM, U.S.A.

‡Pacific Ecoinformatics and Computational Ecology Lab, Berkeley, CA, U.S.A.

§School of Biological and Chemical Sciences, Queen Mary University of London, London, U.K.

SUMMARY

1. Food webs are a powerful whole-system way to represent the patterns of biodiversity and energy flow in a readily quantifiable framework amenable to comparative analyses. Integrated theory and data on complex trophic interactions provide useful and novel ways to study ecosystem structure, dynamics, function and stability.

2. Freshwater ecology has contributed considerably to the advancement of food-web ecology. This has occurred through early application of methodological advances such as stable isotope analysis and description of some of the most detailed food webs, including Little Rock Lake and the Broadstone Stream food webs.

3. Freshwater food webs are often highly resolved, although the inclusion of components such as bacteria continues to be challenging. Characteristics of stream food webs appear to include high rates of omnivory and a strong role for body size as a structuring influence.

4. While freshwater ecology has often included landscape factors, food webs from freshwaters have most often been collected at small spatial scales. There is a need to take a landscape approach to the study of food-web dynamics in freshwater ecosystems.

5. Studies of food webs that take an experimental approach or utilise natural gradients remain rare but will be vital to untangling causative relationships between changing environmental conditions and food-web structure and dynamics.

6. Emerging directions in freshwater food-web research involve integrating individual-level variation and information on traits into food-web studies. This is allowing a growing understanding of the ways in which food webs can be used to integrate community, evolutionary and population processes into studies of biodiversity.

7. A Virtual Issue of *Freshwater Biology* entitled 'Advances in food-web research: a compendium of *Freshwater Biology* papers' brings together papers included in this review that have been published in the journal since 1985. The Virtual Issue can be located at http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2427/homepage/virtual_issue_advances_in_food-web_research.htm.

REPORTS FROM THE TRENCHES

THOMPSON LAB

SCHOOL OF BIOLOGICAL SCIENCES, MONASH UNIVERSITY

From 1st Feb 2013

INSTITUTE OF APPLIED ECOLOGY UNIVERSITY OF CANBERRA

This will be my last 'Monash badged' 'report from the trenches' as I move to take up the Chair in Water Science (commonly known as 'Norry's old position') at the University of Canberra in February next year. I am looking forward to the challenge of working in a new environment, although I will keep my links with Monash via ongoing collaborations, students and an adjunct position.

Staying at Monash will be **Nicholas Moran** who for his PhD will be working with **Ross Thompson** and behavioural ecologist **Bob Wong** on community composition of arid zone fishes. Nick has already been galavanting around the desert and getting a feeling for 'extreme' fish biology.

Phil de Zylva (who completed a Hons with Ross and **Jenny Davis** in 2012) and **Laura Caffrey** (who completed a Hons with Ross in 2011) are continuing to work on CEWH funded work on environmental flows monitoring in the Goulburn. We say farewell to **Jim Griffiths** (also ex-Hons) who has got through a mass of work identifying invertebrates from central Australia. **Adrian Dusting** is currently in NZ for fieldwork on invasion and adaptation in New Zealand mudsnails; (co-supervised by Ross Thompson and Paul Sunnucks), and recently presented his research at the NZFSS conference in Dunedin. **Clarissa Barbosa** is up to her neck in zooplankton and invert samples from both central Australia and her major experiment. **Mel Klamt** (Thompson/Davis) has completed her confirmation and is immersing herself in planning for more experiments in her PhD on the ecological role of platypus in running waters. **Glenis McBurnie** of the NT government is working for her Honours degree with Ross and Jenny on waterhole communities... the project involves paddling pools, camel dung and a lot of frustration!! **Teresa MacIntosh** (PhD; biodiversity of urban wetlands; Thompson/Davis) has finished her first full field season and is learning the joys of picking wetland bug samples. **Darren Gilling** (PhD; carbon dynamics in streams subject to revegetation; co-supervised by Ross and Ralph Mac Nally) is weaning himself off fieldwork and is staring down the barrel of completion in 2013.

Ross, Mike Grace, John Beardall (algal physiology) and Jason Beringer (climate modelling) are in the final phases of their *NCCARF* funded project looking at climate

effects on ecosystem processes, working with **Paula Sardinia** as a post-doctoral fellow. Paula will return to Argentina in early 2013 to take up a position there. Ross has just commenced his *ARC Future Fellowship* for four years – largely based around a project exploring food web assembly and its interactions with anthropogenic change. This project is based in central Victoria and will continue from U Canberra.

Sally Hladyz is continuing to lead Monash's involvement, with Jenny Davis and Mike Grace, in the CSIRO Environmental Flows flagships based around work in the Edwards-Wakool system, in collaboration with Robyn Watts and Keller Kopf at Charles Sturt University.

Ross Thompson

The final quarter of 2012 began with a flourish of stygofauna sampling in the upper Hunter Valley. **Nathalie van der Veer** and **Peter Hancock** spent a week chasing elusive groundwater bugs in the Hunter River alluvial aquifers between Muswellbrook and Scone. The fauna was dominated by the usual copepods, but highlights were three aesthetically pleasing genera of Bathynellacea. **Pete** and **Katrina Cousins** then spent a week near Mudgee, where stygofauna and delicious food abound. Stygofauna of one taxon or another were collected from 70 % of the locations sampled.

Nathalie van der Veer has been busy conducting an aquatic and riparian monitoring program near Mudgee. This included riparian condition assessments, fish trapping, macroinvertebrate sampling and habitat assessment. **Nat** recently completed her AUSRIVAS training and participated in a 5 day practical workshop at Canberra University. This provided excellent hands-on experience as well as an opportunity to meet others who share an interest in freshwater ecology.

Paul Frazier and **Emma Garraway** recently submitted the final Environmental Flow Assessment and Aquatic Ecology Assessment to Rous Water as part of their investigations into the viability of Dunoon Dam.

Emily Laurie and **Nat** recently completed post-works monitoring of riparian rehabilitation sites as part of the High Country Urban Biodiversity Project. ELA undertook monitoring before and during the project as part of the project's monitoring and evaluation strategy.

The ELA team has grown by two, expanding our ever-growing complement of aquatic ecology skills. **Toni Frecker** brings to our Sydney office experience in developing management plans to control nutrient loads in urban runoff. **Ben Smith** has joined ELA after a recent stint in Mongolia with the UN Development Program as an advisor on mining and climate change. Ben adds to the Perth team his experience in river and wetland ecological assessment.

Ian Dixon and **Peter Hancock** attended the ASL congress in Armidale and enjoyed catching up with past colleagues and meeting new ones. All of the talks we attended were very interesting, so well done to all of the presenters. Well done also to Darren and the conference organisers!

Peter Hancock

peterh@ecoaus.com.au

Griffith UNIVERSITY

Australian Rivers Institute

Merry December everyone! I'll start this month's update off with a quick admission. This is my third ASL submission and I finally got a mention (well about three actually). However, I had to write about myself in the third person and now I just feel awkward.

Moving on swiftly – Over the last three months our director **Stuart Bunn** has been heavily involved in the continuation of the research collaborations in China. ARI's Australia-China Environment Development Partnership project on river health and environmental flows was featured at the Yellow River Forum in Zhengzhou and at the International Symposium on River and Lake Environments in Zhangjiajie. In recognition of 40th year of diplomatic relations between China and Australia, this project was also showcased at our 2012 Peter Cullen Special Lecture in Brisbane, which was well-attended. An emerging opportunity for research collaboration is through the joint initiative between Griffith University's Climate Change Response Program and ACCA21 (Administrative Centre for China's Agenda 21). Stuart attended their first China-Australia Leadership Dialogue for Climate Change Adaptation in Guangzhou in November and several project ideas were identified for further development.

Out and about - Xiang Tan and **Fen Guo**, PhD students of Stuart and **Fran Sheldon**, have recently been in and around Queensland streams sampling and variously fertilising the southeast as part of a project which aims to assess benthic algal (specifically diatoms) and macro invertebrate consumer responses to nutrients and light.

What better way to end a year than to attend lots of forums and have lots of parties. Here at ARI we are good at both. Last week over 70 of us attend the ARI Forum. The forum is a two day event held each December for all institute members. We use the event to showcase our research and to discuss current successes and future strategies for ARI. A key part of the event is the presentation of awards for best student/staff journal articles. Of the nominated student papers (**Cath Leigh**, **Alisha Steward**, **Andrew Olds**), I am pleased to announce that Alisha's paper on the values of dry river beds took first prize. I am also pleased to say that of the staff nominations (Fran Sheldon, **Virgilio Hermoso, Tim Page** & **Tim Jardine**) Fran took first prize for her paper on identifying the spatial scale of land use that most strongly influences overall river ecosystem health score. (Details of papers listed at end).

The forum dinner is as highly anticipated as the forum itself, with entertainment provided by the students, this year's dress up theme was "how do I tell mum I'm....". **Rad Bak** went for something 'totally bizarre' by dressing as a chemical analysis machine which was an interesting concept and it won him best costume, so well done Rad for thinking outside the box. Charlotte Hurry was the winner of the Australia Rivers Institute Award (ARIA), this award is presented for the most noteworthy, embarrassing or comical incident of 2012. Charlotte received the ARIA

because when she tripped whilst on fieldwork she chose to save the crayfish in her right hand, landed on her left hand, and broke her left radius badly enough that it required surgery. The crayfish are safe for a few more months until fieldwork can recommence.

Welcome to our newest member **Jim Smart**, Environmental Economist. Jim is a senior lecturer in the School of Environment and is now giving his expertise to ARI. Also, welcome to a new PhD Candidate **Maizah Mohd Abdullah** (from Malaysia). Maizah will reside on the Gold Coast campus to study stable isotope applications in ecology and is supervised by **Joe Lee** and **Brian Fry.**

Congratulations to all our PhDs graduating in December: Alisha Steward, **Courtenay Mills**, **Olivier Baggiano**, **Emily Saeck**, **Pat Laceby**, and **Belinda Young**. **Arlene** Butwell (Wheatley) has also left us as she recently submitted her thesis (congratulations Arlene). Arlene did a phylogenetics analysis in on the Australian freshwater beetles known as *waterpennies*. Arlene's was supervised by **Jane Hughes** and **Dan Schmidt**. Andrew Olds also recently finished his PhD on the ecological connectivity and MPA function in western pacific back-reef systems, supervised by **Rod Connolly** and **Kylie Pitt**. Andrew received quite a lot of media coverage for his work in the Moreton Bay Marine Park; his research was included in a Catalyst Report earlier in the year. Andrew has is now working with Rod and Pitt as a postdoc on an ARC Linkage grant.

The 2013 HDR student representatives were voted in for next year. Reps organise a number of workshops and functions for the PhDs. In 2012 our workshops included the presentation workshop and wilderness first aid. In 2013 the new Nathan reps will be Charlotte Hurry & Ashlee Shipham (deputy) and Gold Coast reps will be Ariella Budarf & Jean Davis (deputy).

Charlotte Hurry

Best papers awarded at ARI Forum:

Steward AL, von Schiller D., Tockner K., Marshall J.C. and Bunn SE, 2012. When the river runs dry: human and ecological values of dry riverbeds. Frontiers in Ecology and the Environment. 10: 202 - 209.

Sheldon, F., Petersen, E., Boone, E., Sippel, **S., Bunn**, S., Harch, B. (online 2012) Identifying the spatial scale of land use that most strongly influences overall river ecosystem health score. Ecological Applications http;//dx.doi.org/10.1890/11-1792.1

FRESHWATER GROUP, UTS, SYDNEY

The freshwater group at UTS has had a busy few months. Five members attended the ASL Conference with Daniela Cortez' poster receiving 'Best student poster award' and Rebecca Herron, Stefanie Mueller and Ann-Marie Rohlfs presenting their PhD Research. Ben Kefford proposed a new risk assessment method for episodic pollutants and was part of a global review of threat to rivers from salinisation. Renee Dowse is currently collaborating with Bayesian statisticians from the UK for her paper on the trade-offs between data quantity and quality in risk assessment. Ann-Marie and Lloyd Werry have continued their field research in the Snowy River with much field work now the snow is melted. Whilst Daniela, Rebecca and Stefanie each complete final field studies for the year, Daniela and Stefanie to the NSW central coast and Rebecca to far north Queensland. Looking forward to doing it all again in the new year!

ASL EXPERTS

The following ASL members have volunteered to speak as experts on the topics listed under their name. In doing so they speak on their own behalf not on behalf of the ASL.

If you wish to be included on the list contact Dr R.Marchant at rmarch@museum.vic.gov.au

Prof A. Arthington: in stream flows, ecology of exotic fishes, conservation of rare fishes. Australian Rivers Institute, Griffith University, Nathan QLD 4111. Phone (07) 3875 7403, Fax (07) 3875 7615, email: a.arthington@mailbox.gu.edu.au

A/Prof P. Boon: bacteriological issues, wetlands. Environmental Management, Victoria University of Tech., PO Box 14428 MMC, VIC 3000. Phone (03) 9365 2214, Fax (03) 9365 2465, email: paul.boon@vu.edu.au

Dr K.Bowmer: pesticides - fate and ecological impact, aquatic plant management. Charles Sturt University, PO Box 588, Wagga Wagga, NSW 2678. Phone (02) 6933 2221, Fax (02) 6933 2060, email: kbowmer@csu.edu.au

Dr M. Brock: temporary wetlands, aquatic plants. 47 Brightwater Rd, Blackmans Bay, TAS 7052. Phone (03) 6227 1812, mobile 0429721416, email: brock.margaret@gmail.com

Prof. S. Bunn: stream ecology, ecology of riparian zones, biomonitoring. Australian Rivers Institute, Griffith University, Nathan, QLD 4111. Phone (07) 3735 7407, Fax (07) 3735 7615, email: s.bunn@griffith.edu.au

Dr M.Casanova: charophytes, temporary wetlands. 273 Casanova Rd Westmere, VIC 3351. Phone (03) 5350 2111, email: amcnova@netconnect.com.au

Prof J.Davis: wetland and stream ecology, ecology of central Australian waterbodies. Department of Biological Sciences, PO Box 18, Monash University, Clayton VIC 3800. Phone (03) 9905 1063, email: Jennifer.Davis@sci.monash.edu.au

Prof. P. De Deckker: salt lakes: biology, chemistry and history; palaeolimnology towards understanding past environmental change. Dept. of Earth & Marine Sciences, The Australian National University, Canberra ACT 0200. Phone (02) 6125 2070, Fax (02) 6125 5544, email: patrick.dedeckker@anu.edu.au

Dr. M. Douglas: tropical freshwater ecology, intermittent streams, tropical floodplains. School of Biological and Environmental Sciences, Northern

Territory University, Darwin, NT 0909. Phone (08) 8946 7261, Fax (08) 8946 6847, email: michael.douglas@ntu.edu.au

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